SAMSUNG

LCD MONITOR

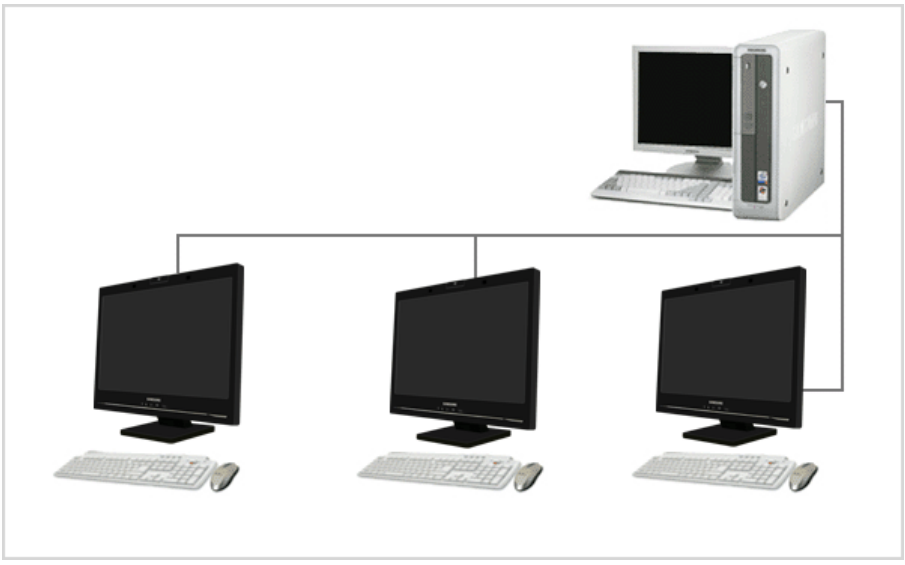
quick start guide

220TN

The color and appearance of the product may vary depending on the model, and the product specifications are subject to change without prior notice for reasons of performance enhancement.

Features

What is a network monitor?



- A network monitor can be used for the same purposes as a common monitor. It also provides the functionalities of most computers, such as an Internet connection, creating documents, editing images, via a connection to the host PC over the LAN. In addition, it allows you to connect an external device (DSC, MP3, external storage media) to the USB port and play music, movies and games. It is a new concept monitor.
- You also can share the screen being displayed on your network monitor with other users by connecting a projector or other display device to its RGB OUT port. You can use this functionality for video conferencing and a variety of shared tasks.
- In addition, because Windows XP is installed on your network monitor, you can perform Internet searches and USB memory searches independently of your host PC.

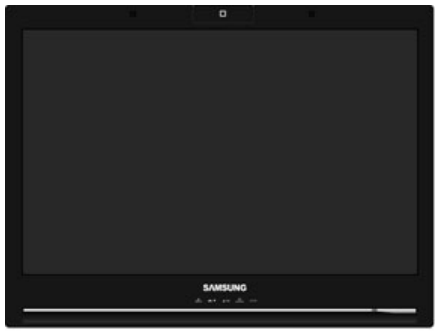
Package Contents

Please make sure the following items are included with your monitor.
If any items are missing, contact your dealer.

Contact a local dealer to buy optional items.

Unpacking

Without Stand

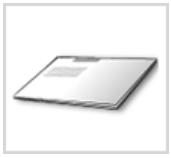


Monitor

With Stand

Monitor & Simple stand

Manual

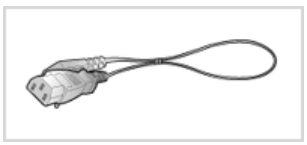


Quick Setup Guide

Warranty Card
(Not available in all locations)

User's Guide, Monitor Driver, Natural Color, MagicTune™ software

Cable



Power Cord

RGB-IN Cable

USB Cable

Sold separately

Keyboard (USB)

Mouse (USB)

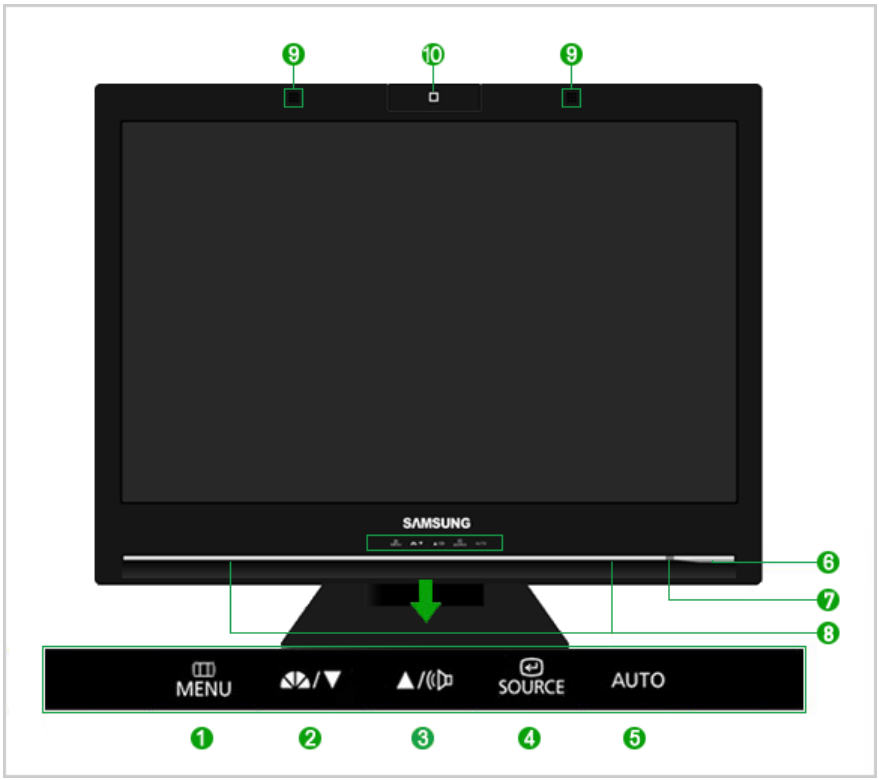
Others

Cleaning Cloth

※ This is an accessory that can be added depending on the model.

Your Monitor

Front



※ Touch a button lightly with your finger.

1	MENU button [MENU]	Opens the OSD menu. Also use to exit the OSD menu or return to the previous menu.
2,3	Adjust buttons [▼/▲]	These buttons allow you to adjust items in the menu.
2	MagicBright™ button []	MagicBright™ is a new feature providing optimum viewing environment depending on the contents of the image you are watching. Currently six different modes are available: Custom, Text, Internet, Game, Sport and Movie. Each mode has its own pre-configured brightness value. You can easily select one of six settings by simply pressing MagicBright™ control

buttons.

1) Custom
   Although the values are carefully chosen by our engineers, the pre-configured values may not be comfortable to your eyes depending on your taste. If this is the case, adjust the brightness and contrast by using the OSD menu.
2) Text
   For documentations or works involving heavy text.
3) Internet
   For working with a mixture of images such as texts and graphics.
4) Game
   For watching motion pictures such as a game.
5) Sport
   For watching motion pictures such as a Sport.
6) Movie
   For watching motion pictures such as a DVD or Video CD.

>> Click here to see an animation clip

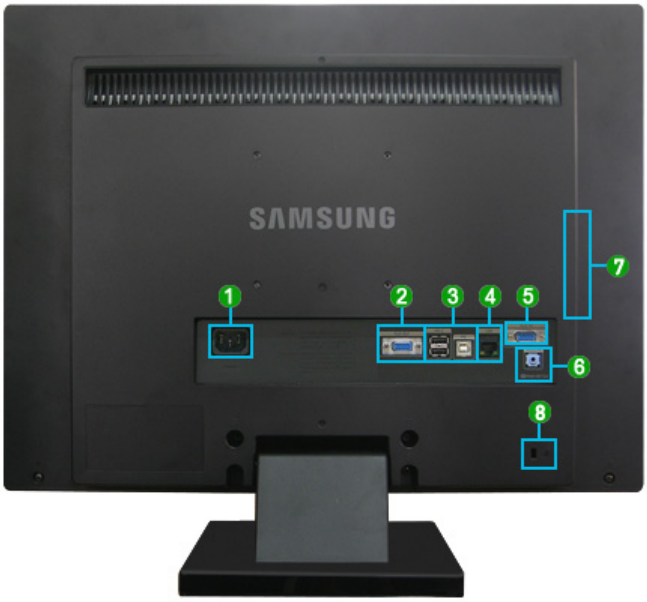
3	Volume button []	When OSD is not on the screen, push the button to adjust volume. >> Click here to see an animation clip
4	Enter button [SOURCE] / SOURCE button	Activates a highlighted menu item. / Push the 'SOURCE', then selects the video signal while the OSD is off. (When the 'SOURCE' button is pressed to change the input mode, a message appears in the upper left of the screen displaying the current mode -- Analog or Client input signal.) >> Click here to see an animation clip
5	AUTO button [AUTO]	Use this button for auto adjustment. >> Click here to see an animation clip
6	Power button []	Use this button for turn the monitor on and off. ※ Be careful as pressing the Power button in client mode will shut down Windows XPe. Be careful that if you force shut down Windows it may cause damage. In these cases your monitor will be forcefully shut down and this may cause damage to your operating sysetm. Therefore ensure that the EWF function is enabled. 1. Turn the power off by holding down the Power button after switching to Monitor mode from Client mode. 2. Make sure to shut down Windows by clicking **Start > Shut Down... > Shut down > OK** in Client mode. If Windows is corrupted and does not boot up, consult your system administrator. When unable to boot up your computer because of a Windows crash, please contact your Administrator.
7	Power indicator	This will enable you to see the overall power status of the system. For more information, see the PowerSaver section.
8	Speaker	You can hear sound by connecting the soundcard of your PC to the monitor.
9	MIC	Transmits voice when you are having a conversation using the Syncon.
10	Camera	Transmits video when you are having a conversation using the Syncon.

※ Both the microphone and camera are only available when operating them via the Syncon.
※ See PowerSaver described in the manual for further information regarding power saving functions. For energy conservation, turn your monitor OFF when it is not needed, or when leaving it unattended for long periods.

Camera

※ This is a dedicated camera for video chatting and video calling.
Do not rotate the camera using excessive force, as this may cause a product malfunction.

Rear



※ The configuration at the back of the monitor may vary from product to product.

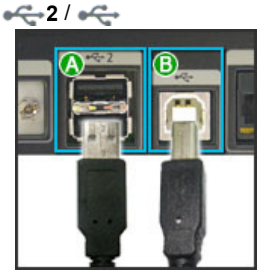
1 POWER

- POWER
  : Connect the power cord for your monitor to the POWER on the back of the monitor.

2 RGB OUT

- Connect when using it as a monitor.

3 2 /



A 2
: Connect the 2 of the USB monitor and a USB device with the USB cable.

B
: Connect the of the monitor and the USB of the computer with the USB cable.

- **To use 2, you have to connect the to the PC.**
- **Make sure to use the USB cable supplied with this monitor to connect the monitor's and your computer's USB.**

4 LAN (LAN Connection Terminal)

- Connect when using it as a monitor.

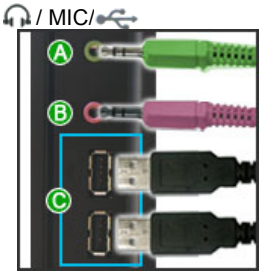
5 RGB IN

- RGB IN
  :Connect the signal cable to the 15-pin, D-sub port on the back of your monitor.

6 AUDIO IN

- AUDIO IN
  : Connect the audio cable for your monitor to the audio port on the back of your computer.

7 / MIC/



A (Earphone jack)
: Headphone connection terminal.
B MIC (The Microphone connection terminal)
: Connect a microphone to the MIC terminal.
C (USB Connection Terminal)
: Connect USB devices such as a mouse, keyboard and external storage devices (DSC, MP3, external storage, etc.).

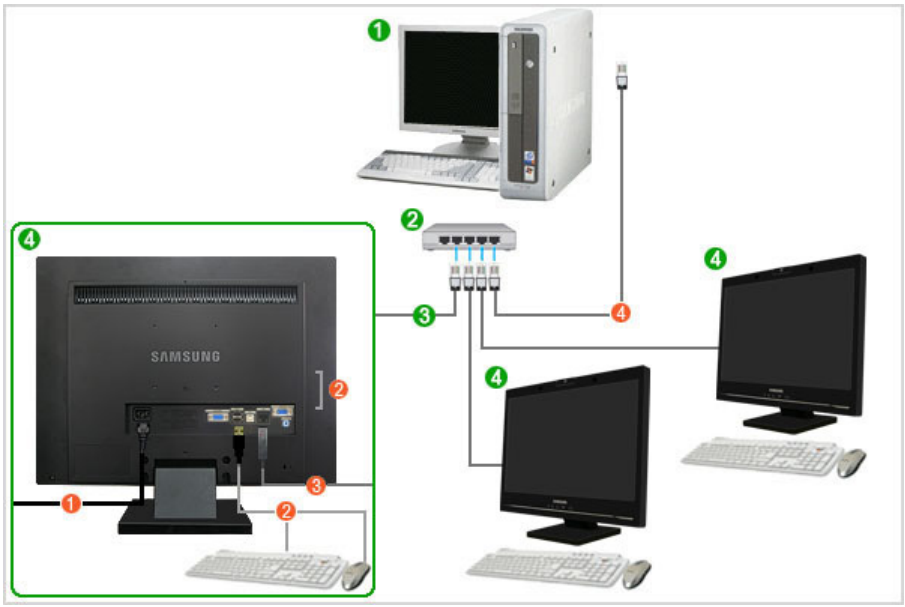
8 Kensington Lock

- The Kensington lock is a device used to physically fix the system when using it in a public place.
  (The locking device has to be purchased separately.)
  For using a locking device, contact where you purchase it.

※ See Connecting Cables for further information regarding cable connections.

Connecting Cables

Connect to the host PC using a LAN cable



1 Host PC 2 Hub 3 LAN Cable 4 Monitor

1. Connect the power cord to the power terminal at the back of the monitor.
2. Connect the mouse and the keyboard to the USB ports.
3. Connect the LAN port on the back of the monitor and the hub.
4. Connect the hub and the LAN port of the host PC.

※ The host PC must have an IP address.

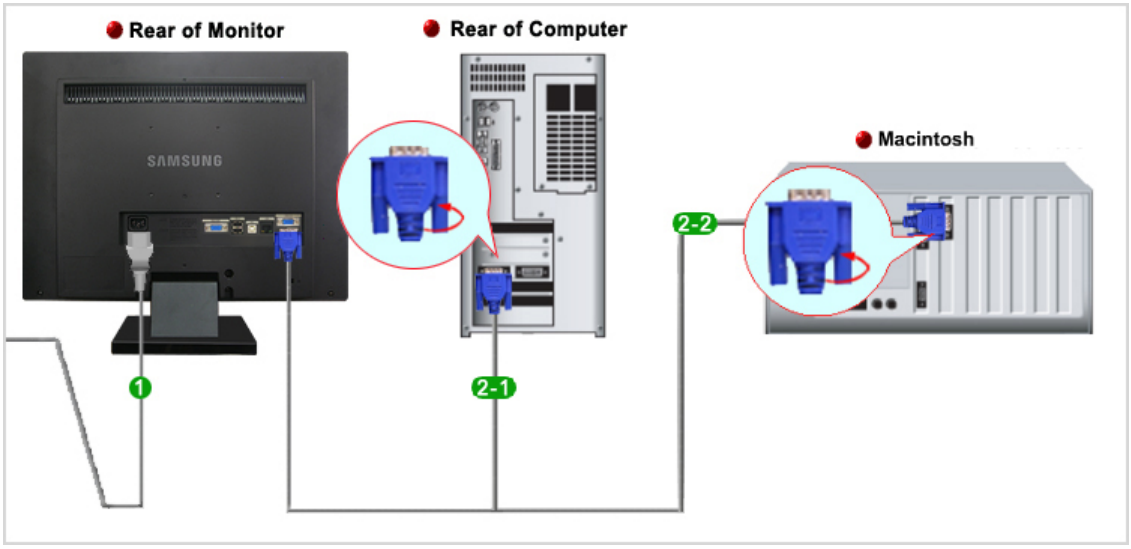
After connecting the LAN and setting the IP address, you can view the host PC screen on the monitor.

Use the RGB IN port to directly connect the monitor to a PC.

Connect to the RGB OUT port to display the same picture on another monitor such as the projector. (For presentation purposes)

Use the USB port to connect an external storage device (DSC, MP3, external storage, etc.).

Connecting Cables (When used as a normal monitor)



1 Connect the power cord for your monitor to the POWER port on the back of the monitor.
Plug the power cord for the monitor into a nearby outlet.

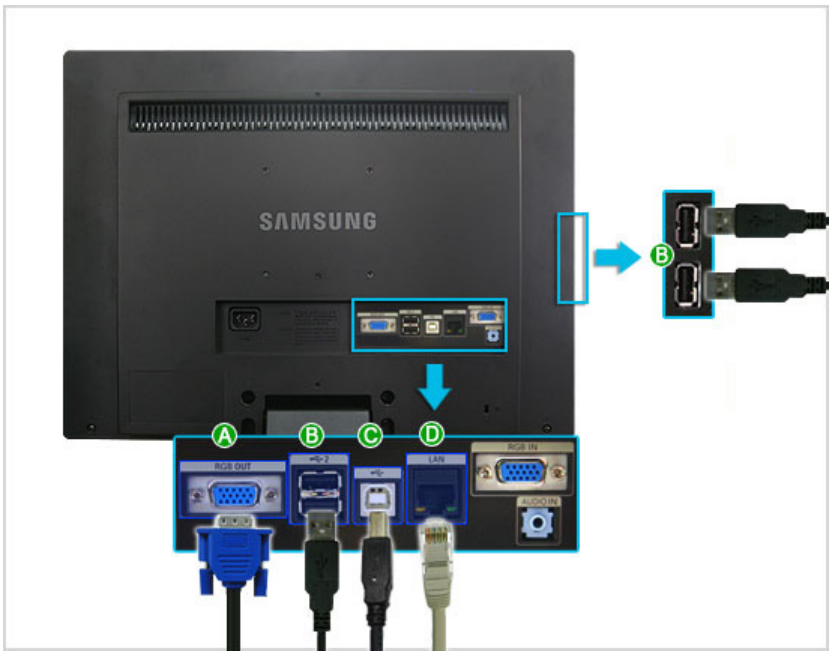
2 Use a connection appropriate for your computer.

2-1 Using the D-sub (Analog) connector on the video card.
- Connect the D-Sub Cable to the RGB IN port on the back of your monitor.
[RGB IN]

2-2 Using Macintosh
- Connect the monitor and the Macintosh computer using the computer connection cable.

※ If the monitor and the computer are connected, you can turn them on and use them.

External Device Connection



A	D-sub 15-pin port [RGB OUT]	Use it by connecting it to another monitor. (The picture of the main monitor is displayed on the connected monitor.)
B	**2** (USB Connection Terminal)	Connect USB devices such as a mouse, keyboard and external storage devices (DSC, MP3, external storage, etc.). (Connect the **2** of the USB monitor and a USB device with the USB cable.)
C		Connect the of the monitor and the USB of the computer with the USB cable.

D	LAN (LAN Connection Terminal)	Connect the LAN cable.

Connecting USB

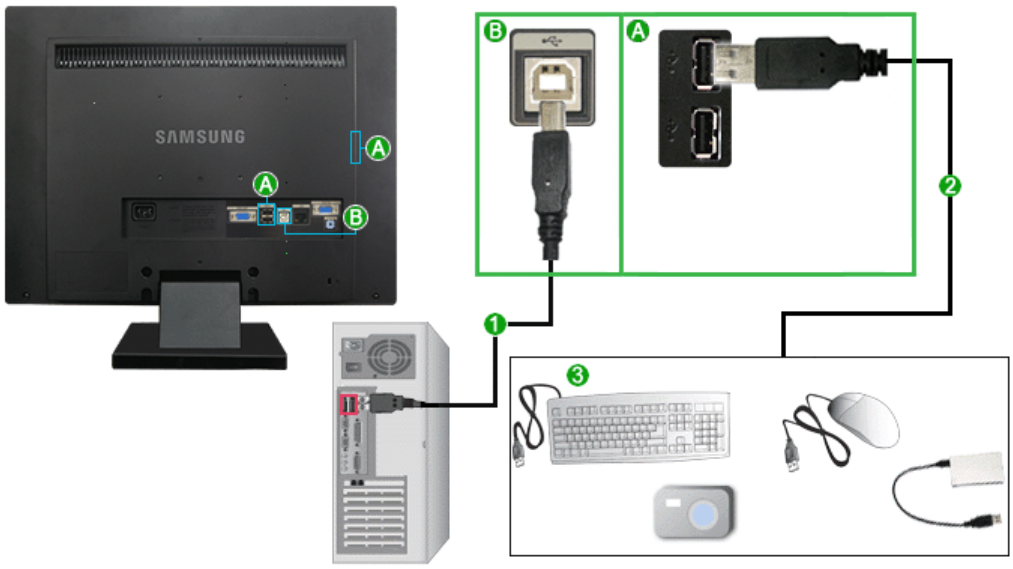
Connecting USB

※ Turn on your monitor and PC. If you connect the cable to the connector of your monitor and the 2 cable to the 2 connector of your PC, the installation programs related to microphone and camcorder are performed automatically.

You can use a USB device such as a mouse, keyboard, Memory Stick, or external hard disk drive by connecting them to the 2 port of the monitor without connecting them to the PC.

The USB port of the monitor supports High-Speed Certified USB 2.0.

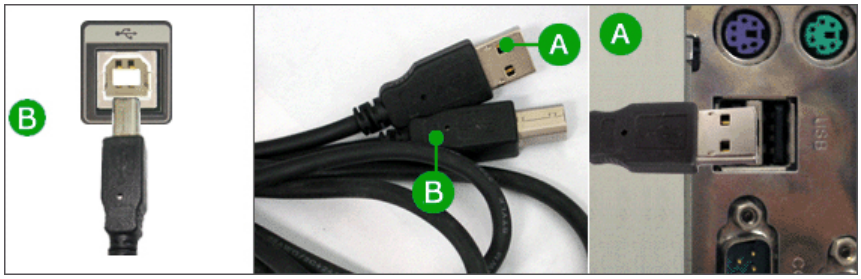
	High speed	Full speed	Low speed
Data Rate	480 Mbps	12 Mbps	1.5 Mbps



1 Connect the port of the monitor and the USB port of the computer with the USB cable.

※ To use port, you have to connect the to the PC.

Make sure to use the USB cable supplied with this monitor to connect the monitor's B port and your computer's USB port.



2 Connect the port of the USB monitor and a USB device with the USB cable.

3 The use procedures are as the same as those for using an external device connecting to the PC.

- You can connect and use a keyboard and mouse.
- You can play a file from a media device.
  (Examples of media devices: MP3, digital camera, etc.)
- You can run, move, copy or delete the files on the storage device.
  (Examples of storage devices: external memory, memory card, memory reader, HDD-type MP3 player, etc.)
- You can use other USB devices that can be connected to a computer.

- **Do not disconnect the USB cable while the installation is in progress.**
  The program may not be installed completely or may not work normally.
- **When connecting a device to the 2 port of the monitor, connect the device using a cable appropriate to the device.**
  (For the purchase of the cable and external devices, ask the service center of the corresponding product.)
- **The company is not liable for problems or damages to an external device caused by using an unauthorized cable for the connection.**
- **Some products do not follow the USB standard, and it may cause a malfunction of the device.**
- **If the device malfunctions even if it is connected to the computer, contact the service center of the device/computer.**

Using the Stand

※ This monitor supports various types of VESA-standard bases. You need to either fold or remove the base in use to install a VESA base.

Tilt angle

※ The monitor may be reclined -3 to 22 degrees

Attaching a Base

※ This monitor accepts a 100 mm x 100 mm VESA-compliant mounting interface pad.

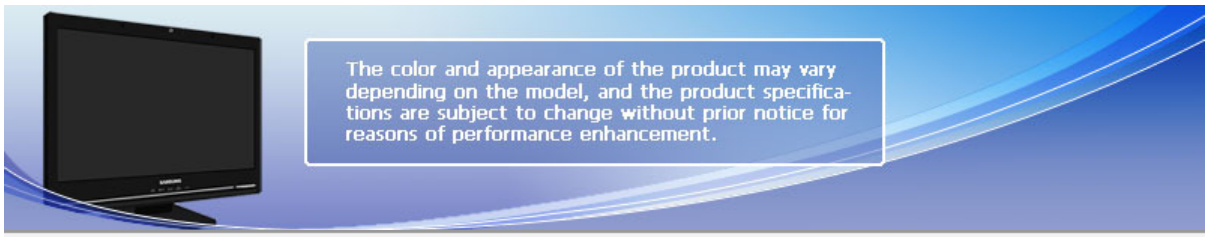
A Monitor

B Mounting interface pad (Sold separately)

1. Turn off your monitor and unplug its power cord.
2. Lay the LCD monitor face-down on a flat surface with a cushion beneath it to protect the screen.
3. Remove four screws and then remove the stand from the LCD monitor.
4. Align the mounting interface Pad with the holes in the rear cover mounting pad and secure it with four screws that came with the arm-type base, wall mount hanger or other base.

- Do not use screws longer than the standard dimension, as they may damage the inside of the Monitor.
- For wall mounts that do not comply with VESA standard screw specifications, the length of the screws may differ depending on their specifications.
- Do not use screws that do not comply with the VESA standard screw specifications. Do not fasten the screws too tightly, as this may damage the product or cause the product to fall, leading to personal injury. Samsung is not liable for these kinds of accidents.
- Samsung is not liable for product damage or personal injury when a non-VESA or non-specified wall mount is used or the consumer fails to follow the product installation instructions.

- To mount the monitor on a wall, you should purchase the wall mounting kit that allows you to mount the monitor at least 10cm away from the wall surface.
- Contact the nearest Samsung Service Center for more information. Samsung Electronics will not be responsible for damages caused by using a base other than those specified.
- **Please use Wall Mount according to the International standards.**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Check List

Before calling for service, check the information in this section to see if you can remedy any problems yourself. If you do need assistance, please call the phone number on the Information section or contact your dealer.

Symptom	Check List	Solutions
No images on the screen. I cannot turn on the monitor.	Is the power cord connected properly?	Check the power cord connection and supply.
	Can you see "Check Signal Cable" on the screen?	Check the signal cable connection.
	If the power is on, reboot the computer to see the initial screen (the login screen), which can be seen.	If the initial screen (the login screen) appears, boot the computer in the applicable mode (the safe mode for Windows ME/XP/2000) and then change the frequency of the video card. (Refer to the Preset Timing Modes) If the initial screen (the login screen) does not appear, contact the Service Center or your dealer.
	Can you see "Not Optimum Mode", "Recommended Mode 1680 x 1050 60 Hz" on the screen?	You can see this message when the signal from the video card exceeds the maximum resolution and frequency that the monitor can handle properly. Adjust the maximum resolution and frequency that the monitor can handle properly. If the display exceeds SXGA or 75 Hz, a "Not Optimum Mode", "Recommended Mode 1680 x 1050 60 Hz" message is displayed. If the display exceeds 85 Hz, the display will work properly but the "Not Optimum Mode", "Recommended Mode 1680 x 1050 60 Hz" message appears for one minute and then disappears. Please change to the recommended mode during this one-minute period. (The message is displayed again if the system is rebooted.)
	There is no image on the screen. Is the power indicator on the monitor blinking at 1 second intervals?	The monitor is in PowerSaver mode. Press a key on the keyboard to activate the monitor and restore the image on the screen. If there is still no image, press the ' SOURCE ' button. Then press any key on the keyboard again to activate

		the monitor and restore the image on the screen.
I cannot see the On Screen Display.	Have you locked the On Screen Display (OSD) Menu to prevent changes?	Unlock the OSD by pressing the [MENU] button for at least 5 seconds.
The screen shows strange colors or just black and white.	Is the screen displaying only one color as if looking at the screen through a cellophane paper?	Check the signal cable connection. Make sure the video card is fully inserted in its slot.
	Have the screen colors become strange after running a program or due to a crash between applications?	Reboot the computer.
	Has the video card been set properly?	Set the video card by referring to the video card manual.
The screen suddenly has become unbalanced.	Have you changed the video card or the driver?	Adjust screen image position and size using the OSD.
	Have you adjusted the resolution or frequency to the monitor?	Adjust the resolution and frequency at the video card. (Refer to thePreset Timing Modes).
	The screen can be unbalanced due to the cycle of the video card signals. Readjust Position by referring to the OSD.	
The screen is out of focus or OSD cannot be adjusted.	Have you adjusted the resolution or frequency on the monitor?	Adjust the resolution and frequency of the video card. (Refer to the Preset Timing Modes).
LED is blinking but no images on the screen.	Is the frequency properly adjusted when checking the Display Timing on the menu?	Adjust the frequency properly by referring to the video card manual and the Preset Timing Modes. (The maximum frequency per resolution may differ from product to product.)
There are only 16 colors shown on the screen. The screen colors have changed after changing the video card.	Have the Windows colors been set properly?	Windows XP : Set the resolution at the Control Panel → Appearance and Themes → Display → Settings. Windows ME/2000 : Set the resolution at the Control Panel → Display → Settings.
	Has the video card been set properly?	Set the video card by referring to the video card manual.
There is a message that reads "Unrecognized monitor, Plug & Play (VESA DDC) monitor found".	Have you installed the monitor driver?	Install the monitor driver according to the Driver Installation Instructions.
	See the video card manual to see if the Plug & Play (VESA DDC) function can be supported.	Install the monitor driver according to the Driver Installation Instructions.
Check when MagicTune™ does not function properly.	MagicTune™ feature is found only on PC (VGA)	* To check whether your PC is available for MagicTune™ feature, follow the steps below (When Windows is XP);

	with Window OS that supports Plug and Play.	Control Panel → Performance and Maintenance → System → Hardware → Device Manager → Monitors → After deleting Plug and Play monitor, find 'Plug and Play monitor' by searching new Hardware. MagicTune™ is an additional software for the monitor. Some graphic cards may not support your monitor. When you have a problem with the graphic card, visit our website to check the compatible graphic card list provided. http://www.samsung.com/monitor/magictune
MagicTune™ doesn't work properly.	Have you changed your PC or video graphic card?	Download the latest program. The program can be downloaded http://www.samsung.com/monitor/magictune
	Did you install the program?	Reboot the computer after installing the program for the first time. If a copy of the program is already installed, remove it, reboot the computer, and then install the program again. You need to reboot the computer for it to operate normally after installing or removing the program.
Problems related to Audio	No sound	Ensure that the audio cable is firmly connected to both the audio-in port on your monitor and the audio-out port on your sound card. (Refer to Connecting the Monitor) Check the volume level.
	Sound level is too low.	Check the volume level. If the volume is still too low after turning the control to its maximum, check the volume control on the computer sound card or software program.
I pressed the Power button to turn the monitor off. But only the message 'Please Wait' appears and the monitor does not turn off even after a lot of time has passed.	Please shut down the monitor forcefully.	Windows XPe may sometimes not shut down normally. In this case, please shut the monitor down by force by holding down the Power Button for five (5) seconds.

※ Visit the MagicTune™ website and download the installation software for MagicTune™ MAC.

Check the following items if there is trouble with the monitor.

Symptom	Solutions
The screen does not appear when I switch to the Client Mode.	To use the network function, approximately 30 seconds of booting time is required after turning the power on, and a blank screen appears for 3 to 4 seconds during booting. Please switch the mode about 30 seconds after the power is turned on.
The client screen appears, but I cannot connect to the server.	1) Check if the Hub port LED to which the LAN cable is connected blinks. If not, that indicates that the LAN connection is disconnected. In this case, connect using another LAN cable. 2) Check if the settings of the 'Settings', 'Network' tab are properly set up. The default setting is "DHCP". If your network uses a static IP address, select 'Use the following IP address' and then enter the appropriate IP address information. 3) Check if the 'User Name' and 'Password' set in the 'Remote Desktop' tab of 'Settings' are the same as those of the host PC. If not, match the 'User Name' and 'Password' of the 'Remote Desktop' with those of the host PC.
I cannot access the	1) Check if the Hub port LED to which the LAN cable is connected blinks. If not,

Internet in the Client screen.	that indicates that the LAN connection is disconnected. In this case, connect using another LAN cable. 2) Check if the settings of the 'Network' tab of 'Settings' have been properly set up. The default setting is "DHCP". If your network uses a static IP address, select 'Use the following IP address' and then enter the appropriate IP address information.
The contents (video, voice) on the server do not play smoothly on the Client Monitor.	This is because the data is transmitted over the LAN. Check your LAN connection status.
I have connected a digital device such as a digital camera, camcorder or USB memory to the USB port, but they do not work.	This model supports USB devices that support removable disk functions without an additional driver installation. Check if the device you want to connect to is a device that supports the removable disk function without an additional driver installation.
The file list does not appear.	1) Check the files on the card. If only abnormal files (e.g. 0KByte, broken JPEG) exist, the files do not appear on the screen. 2) The time required to display is determined by the size of the file. Wait a moment. 3) Check if the format of the file is supported by the Client Monitor. If the extension of the file has been changed, the file will not be played.

- Check if the power cord and the video cables are properly connected to the computer.
- Check if the computer beeps more than 3 times when booting.
  (If it does, request an after-service for the main board of the computer.)
- If you installed a new video card or assembled the PC, please check if the adapter(video) driver and the monitor driver are properly installed.
- Check if the scanning ratio of the video screen is set at 56 Hz ~ 75 Hz.
  (Do not exceed 60 Hz when using the maximum resolution.)
- If you have problems in installing the adapter (video) driver, boot the computer in Safe Mode, remove the Display Adapter at the "Control Panel → System → Device Administrator" and then reboot the computer to reinstall the adapter (video) driver.

※ If problems repeatedly occur, contact an authorized service center.

Q & A

Question	Answer
How can I change the frequency?	Frequency can be changed by reconfiguring the video card. Note that video card support can vary, depending on the version of the driver used. (Refer to the computer or the video card manual for details.)
How can I adjust the resolution?	Windows XP : Set the resolution at the Control Panel → Appearance and Themes → Display → Settings. Windows ME/2000 : Set the resolution at the Control Panel → Display → Settings. ※ Contact the video card manufacturer for details.

How can I set the Power Saving function?	Windows XP : Set the resolution at the Control Panel → Appearance and Themes → Display → Screen Saver. Set the function at BIOS-SETUP of the computer. Windows ME/2000 : Set the resolution at the Control Panel → Display → Screen Saver. Set the function at BIOS-SETUP of the computer. ※ Refer to Windows/Computer Manual
How can I clean the outer case/LCD Panel?	Disconnect the power cord and then clean the monitor with a soft cloth, using either a cleaning solution or plain water. Do not leave any remains of the detergent nor scratch the case. Do not allow any water to go inside the monitor.

Self-Test

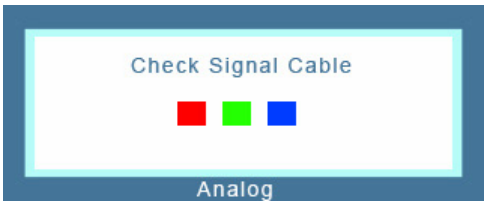
Self-Test Feature Check | Warning Messages | Environment | Useful Tips

Your monitor provides a self test feature that allows you to check whether your monitor is functioning properly.

Self-Test Feature Check

1. Turn off both your computer and the monitor.
2. Unplug the video cable from the back of the computer.
3. Turn on the monitor.

   If the monitor is functioning properly, you will see a box in the illustration below.



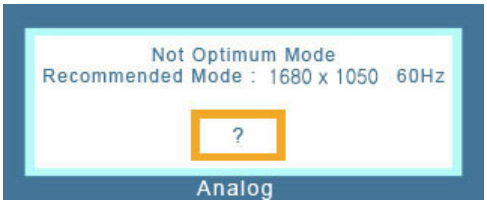
   This box appears during normal operation if the video cable becomes disconnected or damaged.

4. Turn off your monitor and reconnect the video cable; then turn on both your computer and the monitor.

   If your monitor screen remains blank after using the previous procedure, check your video controller and computer system; your monitor is functioning properly.

Warning Messages

If there is something wrong with the input signal, a message appears on the screen or the screen goes blank although the power indicator LED is still on. The message may indicate that the monitor is out of scan range or that you need to check the signal cable.



Environment

- The location and the position of the monitor may influence the quality and other features of the monitor.
  - If there are any sub woofer speakers near the monitor, unplug and relocate the woofer to another room.
    Remove all electronic devices such as radios, fans, clocks and telephones that are within 3 feet (one meter) of the monitor.

Useful Tips

- A monitor recreates visual signals received from the computer. Therefore, if there is trouble with the computer or the video card, this can cause the monitor to become blank, have poor coloring, noise, Video mode not supported, etc. In this case, first check the source of the problem, and then contact the Service Center or your dealer.

- Judging the monitor's working condition

  If there is no image on the screen or a "Not Optimum Mode", "Recommended Mode 1680 x 1050 60 Hz" message comes up, disconnect the cable from the computer while the monitor is still powered on.
  - If there is a message coming up on the screen or if the screen goes white, this means the monitor is in working condition.
  - In this case, check the computer for trouble.